Do parties matter for ethnic violence? Evidence from India*

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Abstract

Ethnic group conflict is among the most serious threats facing young democracies. In this paper, we investigate whether the partisanship of incumbent politicians affects the incidence and severity of local ethnic violence. Using a novel application of the regression-discontinuity design, we show that as-if random victory by candidates representing India’s Congress party in close state assembly elections between 1962 and 2000 reduced Hindu-Muslim rioting. The effects are large. Simulations reveal that had Congress lost all close elections in this period, India would have experienced 11 percent more riots. Additional analyses suggest that Congress candidates’ dependence on local Muslim votes, as well as apprehensions about religious polarization of the electorate in the event of riots breaking out, are what drive the observed effect. Our findings shed new light on parties’ connection to ethnic conflict, the relevance of partisanship in developing states, and the puzzle of democratic consolidation in ethnically-divided societies.

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Ethnic group conflict is among the most serious threats facing young democracies. On J.S. Mill’s assessment, “free institutions are next to impossible in a country made up of different nationalities” (Mill, 1861, 296), and recent history suggests that his misgivings may have been warranted (Horowitz, 1985). For any given year between 1950 and 2012, the outbreak of at least one violent internal dispute pitting a religious, linguistic, tribal, or racial group against another was associated with an 8.5 percentage point decline in a country’s Polity IV score and a 5 percentage point rise in the likelihood of a coup d’état.¹ Identifying the factors that ameliorate or exacerbate subnational ethnic conflict is therefore critical to understanding why democratic regimes survive.

In this study, we examine a potentially important yet largely overlooked determinant of ethnic violence. In particular, we ask, does the partisan identity of elected officials matter for local ethnic conflict? Social science research has devoted surprisingly little attention to this question. Political theories of sectarian violence instead highlight the role of constitutional arrangements (Horowitz, 1985; Lijphart, 1977), social capital (Varshney, 2003), and economic variables (Olzak, 1992). To the extent that scholars have explored the relationship between parties and violence, the primary focus has been on the destabilizing influence of ethnic and religious parties, irrespective of parties’ incumbency status (e.g. Ishiyama, 2009; Capoccia, Saez and de Rooij, 2012).

Existing literature provides opposing views on whether incumbent partisanship should affect ethnic violence outcomes. In developing democracies where bureaucratic and police institutions are weak (Migdal, 1988), party systems are volatile, and parties are riven by factional infighting (Mainwaring and Scully, 1995), constraints on politician behavior might be so great as to render partisanship irrelevant for important outcomes such as conflict. A null effect might also obtain if all citizens share common preferences for the eradication of ethnic

¹Based on regressions with country fixed effects using data on 178 countries from the Polity IV dataset, the PITF State Failure Problem Set, and the Coups d’État Events dataset.
riots—that is, if violence is a valence issue\(^2\)—or if parties’ policy positions tend to converge on the preferences of the median voter, as spatial models of political competition predict (Downs, 1957).\(^3\)

Yet case studies provide anecdotal evidence that the character of incumbent parties can affect patterns of interethnic conflict. The ruling Kenya African National Union (KANU), for example, has been blamed for fomenting ethnic clashes in Kenya in the 1990s (Klopp, 2001). Other parties—particularly those with heterogeneous and/or minority support bases—have been credited with inhibiting ethnic violence. In post-Apartheid South Africa, the African National Congress (ANC) “worked to prevent the activation of political identities that could have fractured the ANC’s diverse support base”; hence the party’s political dominance “has made democracy much more stable and the prospects of ethnic mobilization and violence much less likely” (Piombo, 2009, 118). In Malaysia, the government has fiercely suppressed interethnic violence over the last 40 years, because the ruling National Front, which depends on non-Malay support at the ballot box, has consistently sought “to attend to non-Malay interests” (Crouch, 2001, 254).

To date, there has been little rigorous evidence to adjudicate competing claims about whether incumbent parties affect ethnic violence. Furthermore, most discussion about parties

\(^2\)There is indicative evidence from India and Africa that most citizens are highly averse to political and ethnic violence. In the 2011 Afrobarometer survey, 83 percent of respondents across 33 countries reported that such violence is never justified. Using a survey-vignette experiment in northern India, Banerjee et al. (2014) find that voters are strongly disinclined toward candidates with criminal records, and particularly toward politicians implicated in violent crimes. Based on a similar research design, Rosenzweig (2016) unearths comparable effects regarding violent politicians in Kenya.

\(^3\)In a Downsian-type argument, Wilkinson (2004) claims high party-system fractionalization pushes Indian state governments to limit Hindu-Muslim violence regardless of their partisan identity.
and ethnic conflict has been pitched at the level of national governments. In this paper, we examine the causal effect of local-level incumbency by one party, the Indian National Congress (INC, or Congress), on Hindu-Muslim violence in India—the world’s largest democracy and home to 18 percent of the global population. India has a long history of violent disputes between its Hindu majority and Muslim minority populations. The partition of the Asian subcontinent into India and Pakistan in 1947 resulted in communal pogroms that left approximately a million people dead. A sizable Muslim minority remained in India following partition, and there were fears that religious tensions might once again tear the country apart (e.g. Harrison, 1960). Since independence, however, Hindu-Muslim violence has remained at a relatively low ebb, increasing significantly only in the mid-1980s and declining again after 1992 (see Appendix Figure D1).

The extent to which Congress rule helped curb Hindu-Muslim violence is central to debates surrounding ethnic conflict and democratization in post-independence India (Brass, 1994, Pt. II). A large literature contends that the early electoral dominance of the Congress Party—which emerged from the nationalist struggle against British colonialism—served as a powerful centripetal force in the decades after 1947 (see, e.g. Kothari, 1964). Lijphart (1996, 266) writes that “[t]he big puzzle of Indian democracy—its survival despite the country’s deep ethnic and communal divisions”—is “solved” once we appreciate the catchall, consociational character of Congress governments. Likewise, Weiner (1989, 33) argues that “the conflict-management role of the Congress party has been one of the critical factors in India’s capacity to sustain democratic institutions in spite of violent social conflict.” More recently, party-system development has been cited as a primary reason for the divergent regime trajectories taken by India and Pakistan (Tudor, 2013). On this perspective, Congress’s inclusive policies helped unify a divided nation, laying the foundation for stable democracy.5

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4All references to the Appendix refer to the online supplementary appendix.

5As Wilkinson (2015, 19) puts it: “The Congress Party’s ability to deal with the religious, linguistic, and caste conflicts that might have pulled India apart ... was vital to establishing
Pakistan lacked such an encompassing party, succumbing to three major successful military coups after independence, the first in 1958.\textsuperscript{6}

Contradicting this assessment, other prominent accounts depict Congress as Janus-faced with respect to its positioning and behavior on Hindu-Muslim violence. From a historical vantage point, scholars contend that the commitment of Congress elites to secularism has been skin-deep. Many in the Congress High Command appear to have been lukewarm toward the party’s official secularist stance.\textsuperscript{7} Further, principal-agent problems beset the party. Even assuming the best intentions, the top brass may have struggled to translate national party platforms into constituency-level ground realities, given the fractious nature of the Congress organization. Finding no partial correlation between state-level Congress incumbency and riot outcomes, Wilkinson (2004, 153) concludes that “despite Congress’s official claims to always protect minorities, the party’s status as the dominant catchall party for many years and its often weak party discipline has meant that at one time or another Congress politicians have both fomented and prevented communal violence for political advantage.” Varshney (2003, the party's legitimacy as a governing party in the 1950s and 1960s. And this in turn was very important in limiting the involvement of the military in politics.”

\textsuperscript{6}Ganguly and Fair (2013, 133) write that “there was little in the ideology, social background or internal organisation of the Muslim League [Pakistan’s party of independence] that equipped it for the formidable challenges of state construction ... the fledgling state was confronted with the task of building a new state—with a significant Hindu minority—in East Pakistan, deep sectarian divisions within the Muslim community and substantial linguistic diversity. Pakistan’s leadership ... found itself hopelessly unequal to these compounded challenges.”

\textsuperscript{7}For example, Vallabhbhai Patel—India’s first home minister—was notably less steadfast on the issue of minority protections than Prime Minister Jawaharlal Nehru (Kumar, 1991; Gopal, 1988). In the 1980s, Congress prime ministers Indira Gandhi and Rajiv Gandhi adopted commmunalist themes in their campaign repertoires as Hindu nationalism gained ground across the country (Jaffrelot, 1996, 332, 398)
140) too maintains that communal harmony in Congress-held districts “depended on whether
the Congress ideology of a composite nation or groups subscribing to a communal view of the
nation dominated local wings of the party.”

So far, and despite the debate’s centrality to our understanding of modern Indian politics,
the evidence marshaled on both sides has been thin, drawing either on scattered qualitative
accounts or statistical associations without credible causal interpretations. Moreover, the
exact nature of Congress’s contribution, and which party actors (if any) were pivotal in shaping
conflict outcomes, is mostly unspecified. In short, whether or not Congress Party incumbency
mattered for Hindu-Muslim violence remains an open empirical question—one that we seek
to evaluate.

Using a newly compiled panel dataset, we estimate the effect of local-level incumbency
by the Congress Party on Hindu-Muslim riots in Indian districts between 1962 and 2000.
Our results strongly support the contention that incumbent partisanship in general—and
Congress incumbency in particular—matters for local ethnic conflict. Exploiting as-if random
victories and losses by Congress candidates in very closely fought elections, we demonstrate
that an exogenous increase in the proportion of a district’s seats held by Congress state
legislators caused a statistically significant decline in Hindu-Muslim rioting. The magnitudes
of the effects are large. According to simulations, had Congress lost all close elections in the
dataset—compared to its actual performance—India would have experienced 11 percent more
Hindu-Muslim riots (1,114 instead of 998) and 46 percent more riot casualties (43,000 instead
of 30,000) over the 40 years we investigate. The effect withstands numerous robustness checks,
making it, to our knowledge, the most watertight empirical finding yet uncovered about the
causes of Hindu-Muslim violence in India.

Why does local rule by the Congress Party exert such an effect? Existing theory supplies
two potential explanations. First, standard models of political competition stipulate that
parties should be responsive to the preferences of the social base that elected them—i.e. the
“core constituents” who provide the bulk of party votes (Lipset and Rokkan, 1967; Dixit
and Londregan, 1996). Congress candidates locked swords with parties espousing a range of ideological viewpoints. However, compiling polling data, we document that Congress forged a uniquely close and enduring electoral attachment with minority Muslims voters over the period we analyze. As the chief victims of rioting, Muslims had the strongest desire to see it quashed. Hence the need to cater to the preferences of core minority voters may have provided Congress incumbents with powerful incentives to quell ethnic unrest.

A second class of explanations, anchored in psychology, builds on the insight that outbreaks of ethnic violence tend to polarize electorates along ethnic lines (Greenberg et al., 1990; Fearon and Laitin, 2000). At the individual level, such violence is seen to provoke fear of out-group members and foster a zero-sum, “us-versus-them” mentality. The resultant hardening of ethnic boundaries seems likely to profit ethnic-based parties—protectors of in-group interests—while diminishing the electoral prospects of parties that appeal for multiethnic support. Anticipating these asymmetric consequences of violence, multiethnic parties, of which Congress is a prime example, face a greater motivation to stop it.

We uncover evidence consistent with both mechanisms. Additional analyses show the effect of Congress incumbency to be concentrated in those districts with the largest Muslim populations. We also find riots to be associated with a decrease in Congress vote share—and a concomitant increase in vote share for its ethno-religious rivals—in subsequent elections. The evidence thus supports the idea that Congress candidates’ dependence on local Muslim votes, as well as apprehensions about religious polarization of the electorate in the event of riots breaking out, help drive the observed effect.

This paper makes several contributions. To begin, we demonstrate the relevance of partisan identity for a vital outcome in a developing country setting. While we should be cautious about drawing general lessons from a single case, our finding that incumbent partisanship affects ethnic violence in India is significant for two reasons. First, a common claim in the comparative politics literature is that parties have limited consequences for government behavior in less developed states. For example, Hicken (2009, 155) writes of Thailand and the
Philippines that elections there “are not battles between different ideologies or party programs but rather struggles between personalities for the control of government resources.” Looking at India, (Saez and Sinha, 2010) identify no correlation between the partisanship of the state government and patterns of public expenditure. But in the case of Hindu-Muslim violence in India, partisanship—at least locally—emerges to be highly consequential. Second, we home in on a policy outcome—ethnic violence—which, in ethnically divided states, frequently assumes greater political salience than the economic and development outcomes most often studied in the literature on partisanship’s effects (e.g. Meyersson, 2014).

Our study also adds to the literature on the causes of ethnic violence. Canonical work on this topic mostly highlights slow-moving or difficult-to-change variables in explaining the incidence of ethnic conflagrations—most notably, institutions and constitutional design (e.g. Horowitz, 1985; Lijphart, 1977). The short-term effects of election outcomes has received relatively less attention, yet we show that these do in fact matter a great deal.

Closest to our paper is the seminal study of Wilkinson (2004). In Votes and Violence, Wilkinson argues that major riots only occur when the ruling state government chooses not to forcefully intervene to stop them. In turn, the state government’s decision about whether or not to intervene depends on its electoral incentives. When the ruling party (or coalition) needs minority Muslim votes to win power—either because Muslims form a key component of the ruling party’s support base, or because the party system is so fractionalized that no ruling coalition can afford to alienate potentially pivotal Muslim voters—the state government will

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8See also Kitschelt and Kselman (2013) on unstable party-voter linkages in developing democracies, Bleck and van de Walle (2013) on non-ideological party competition in Africa, Mainwaring and Scully (1995) on weak party institutionalization in Latin America, Slater and Simmons (2013) on collusion and “party cartels” in Bolivia and Indonesia, and Zielinski, Slomczynski and Shabad (2005) and Desposato (2006) on party switching in Poland and Brazil.
step in to quickly end violence.\textsuperscript{9}

We agree with Wilkinson that incumbent politicians who are heavily dependent on minority Muslim votes suppress rioting. However, Wilkinson only systematically tests one part of his argument—that high levels of party fractionalization reduce Hindu-Muslim violence—and not whether the party in power matters when fractionalization is low.\textsuperscript{10} Furthermore, in a multivariate regression framework, he finds that Congress incumbency has no independent effect on rioting. By contrast, we exploit a natural experiment that addresses the potential endogeneity between violence and election outcomes to causally identify the overall effect of Congress party incumbency on ethnic violence, finding a large and consistent negative effect on violence, regardless of the level of party system fractionalization.

Our findings may come as a surprise to some analysts of Indian politics, given that anecdotal evidence of Congress’s complicity in riots is not difficult to come by.\textsuperscript{11} It is important, therefore, to emphasize three scope conditions of our study. First, we explore the effect of incumbent partisanship on Hindu-Muslim violence; we do not address its impact on conflict stemming from other religious, caste, or economic cleavages, which may be governed by al-

\textsuperscript{9}Note that Wilkinson refers to his party system fractionalization variable—ENP, or Effective Number of Parties—as “electoral competition.” We prefer the term “party system fractionalization” since we believe it to be a more accurate term for what ENP measures, which is not to be confused with the closeness of elections, perhaps the more intuitive measure of electoral competition.

\textsuperscript{10}Wilkinson’s only test of partisanship examines state responses around the time of the 2002 Gujarat riots (Wilkinson, 2004, 154–160). This analysis employs 15 observations (states), of which violence broke out in just one (Gujarat).

\textsuperscript{11}The party’s involvement in the anti-Sikh riots in Delhi in 1984 is now well-documented. Examining Hindu-Muslim communal violence in Ahmedabad in 1985, Kohli (1990, 262) writes that “[f]actions within Congress (I), especially those who had failed to get cabinet posts, had an interest in weakening the new Solanki government and thus in encouraging turmoil.”
ternative logics. Second, we identify an average effect of Congress party incumbency. While Congress politicians have, at times, instigated Hindu-Muslim violence, our contribution is to show that this represents an aberration from the norm. Third, our result is only true for state legislators, and we cannot be sure whether an equivalent pattern holds for politicians at other tiers of government. Notwithstanding these caveats, our findings do suggest the need for a reappraisal of Congress’s post-independence legacy, and, more speculatively, the promise of multiethnic parties in divided societies worldwide.

Hindu-Muslim violence and the Congress party

India’s majority Hindus constituted 80.5 percent of the population as of 2001, while Muslims—the country’s largest religious minority—made up 13.4 percent. Deadly rioting between these two communities has erupted periodically over the past century—principally in the Hindi-speaking belt of northern India—and Muslims have been its main victims. Haunted by the bloodshed surrounding the 1947 partition, India’s early ruling elite took a variety of steps to safeguard the 45 million Indian Muslims who had opted not to relocate to Pakistan, and to enshrine their basic rights in the new constitution (Austin, 1966). Interethnic conflict was relatively muted in the first decades of independence (see Appendix Figure D1). During this period, the Congress party held power at the national level and in most of the states, and adhered to a firmly liberal, inclusivist stance on the communal question (Kohli, 1990). Successive Congress governments curbed the activities of Hindu communal organizations, shielded Muslim personal laws, resisted calls for cow protections, stopped the publication of books deemed offensive, and campaigned vigorously against religious parties of all stripes (Gopal, 1984).

Secularism has featured prominently in the Congress’s own self-descriptions. For example, its 1991 election platform stated that “Communal riots are a blot on every sane and decent Indian’s conscience. The Congress reiterates its unflinching commitment to Pandit Jawaharlal Nehru’s credo as expressed in a speech made in New Delhi on Gandhi Jayanti 1951. ‘If any
man raises his hand against another in the name of religion, I shall fight him till the last breath
of my life ...’ This is the pledge which every Congress candidate in the forthcoming elections
solemnly takes” (Indian National Congress, 1991, 45–6). Opposition groups have pilloried
Congress’s “appeasement” of the Muslim minority, labeling the party “pseudo-secularist”
(Pantham, 1997). But the Congress strategy paid dividends at the polling booth: “In the first
three general elections Muslims were indissolubly tied to the Congress,” writes Hasan (1997,
216).

Still, however sympathetic the Congress leadership proved to be at the center, under Article
246, Schedule 7 of the Indian Constitution it is state governments that are charged with
primary responsibility for maintaining public order. Furthermore, ethnic violence is first and
foremost a local phenomenon with myriad possible causes. A squabble between shopkeepers, a
religious procession, or rumors about sexual transgressions are sometimes sufficient to trigger
large-scale riots (Brass, 1997). Deep local knowledge may be required to foresee and resolve
disputes of this kind, and to inhibit their escalation. We therefore focus our analysis on the
state legislators, or Members of the Legislative Assemblies (MLAs), who are elected at least
once every five years to single-member constituencies under first-past-the-post rules. The
majority of MLAs stand for election under a party label, though some stand as independents.

As key political actors locally, MLAs have been implicated in both provoking and pre-
venting Hindu-Muslim riots in order to woo votes (Berenschot, 2011). The ability of MLAs
to sway riot outcomes stems from three sources. First, the nodal position of MLAs in local
political and social networks accords these politicians expansive influence over community
relations within their constituencies. As we show qualitatively below, MLAs’ high social
standing often enables them to serve as effective arbiters between hostile groups, which can
help to stave off violence. Second, in their capacity as legislators and (at times) ministers in
the state executives, MLAs enjoy access to government and party officers in state capitals.

The average MLA constituency comprised 75,146 registered voters over the period we
analyze.
At MLAs’ request, these officers can supply regions with added support—including policing, development spending, and patronage—in times of communal crisis. Third, MLAs typically have extensive input into the selection of local police and bureaucrats (Balasubramanian 2006, 139, 303). If an MLA perceives that either the district police chief (the Superintendent of Police, or “SP”) or the head bureaucrat (the District Magistrate, or “DM”) are insufficiently committed to mitigating Hindu-Muslim conflict in the district, the MLA can lobby for these officials to be transferred to an undesirable posting elsewhere—something that occurs with considerable regularity (Iyer and Mani, 2012). Knowing this, SPs and DMs largely accede to MLAs’ wishes. These wishes include concerns about ethnic violence. Chopra (1996, 116, 228–9) presents evidence from a survey of 207 MLAs across six major states between 1990 and 1992. When asked to identify their region’s most pressing problems, 85 percent of respondents cited “communalism” among the top five. In two out of six states, it was regarded as the most important issue.

The specific research question posed by this paper is, have Congress MLAs had a differential impact, on average, from non-Congress MLAs with respect to riot prevention and control? Existing qualitative evidence is conflicted on this point.

Militating against the claim that Congress incumbency affected ethnic riots, it is clear that Congress was not the only party in post-independence India to oppose communalism, nor was it the only one to have courted Muslim support. Secularism is a central plank of India’s two main Communist parties, for example, while the Samajwadi Party and the Bahujan Samaj Party have sought Muslim votes by pledging to preserve communal peace. More than that, Congress’s party organization was beset by factionalism throughout the years we consider, and “[i]deological coherence was lacking” (Hasan, 1997, 216). Hindu traditionalists at times suffused Congress candidate lists and district party committees, constituting “a brake on the development of secularism” (Jaffrelot, 1996, 159). This has been cited as evidence against the claim that Congress acted as an effective guardian of interethnic peace (Wilkinson, 2004; Varshney, 2003). If these generalizations are correct, we should expect to see no significant
difference in riot outcomes on average when a Congress MLA candidate wins office instead of a non-Congress candidate.

Yet, several important factors appear to set the Congress apart from its competitors. Significantly, Congress had the greatest national reach of any political party over the period we investigate. Numerically, Congress’s most important opponent has been the Bharatiya Janata Party (BJP), a Hindu nationalist party (and direct successor to the Bharatiya Jana Sangh, or BJS) whose affiliated civil society organizations, collectively dubbed the Sangh Parivar, have frequently been implicated in provoking Hindu-Muslim riots (Jaffrelot, 1996). Meanwhile, other purportedly secular political parties advocating for Muslim minority interests are comparatively young; they have competed in fewer elections, have been regionally confined, and have not succeeded in maintaining large Muslim support with the consistency of the Congress.\textsuperscript{13} Rich time-series data on Muslim voting patterns, which we compile in Figure 1, are only available for the national (Lok Sabha) elections. Keeping in mind the possibility that state-level voting patterns may have departed from national trends, Figure 1 reveals that Congress has enjoyed either a majority (pre-1989) or large plurality (post-1989) of Muslim votes since the 1950s;\textsuperscript{14} meanwhile, its main electoral adversary, the BJS/BJP, received virtually no Muslim backing. This uniquely strong attachment to India’s Muslim voters may have spurred Congress MLAs to devote special attention to preventing riots compared to

\textsuperscript{13}We document this in Figure D2, where we display the proportion of Muslim votes going to parties receiving the most Muslim support in each election. Other than Congress, no party consistently garnered significant Muslim backing over time.

\textsuperscript{14}Figure 1 also shows that Congress’s electoral dominance declined after 1989—a phenomenon ascribed to various factors, including the rise of the BJP, major corruption scandals in the 1980s, and the growing political assertiveness of lower castes, which produced a proliferation of lower-caste parties. However, it is also apparent from Figure 1 that Muslims always supported Congress at a higher rate than the population at large, suggesting that Muslims remained a core Congress constituency.
Non-Congress MLAs.

Last, it is widely held that Hindu-Muslim riots increase the political salience of the (otherwise very heterogeneous) majority Hindu identity, causing Hindu voters to rally around parties purporting to represent their group interests (Dhattiwala and Biggs, 2012). Inversely, Hindu-Muslim conflagrations tend to undermine the multiethnic coalitions built by Congress candidates. While polarization resulting from Hindu-Muslim violence could have negatively impacted the electoral prospects of other secular parties as well, Congress—as the principal alternative to sectarian parties—has stood to bear the brunt of its effects. Anticipation of polarization’s damaging effect on their majority-group support may have led Congress MLAs to adopt a firmer approach to Hindu-Muslim violence on average than their non-Congress counterparts.

We now lay out an empirical strategy that will allow us to evaluate the question of whether or not local Congress incumbency mattered.

Data and identification strategy

To analyze the effect of local Congress incumbency on communal violence in post-independence India, we compile a panel dataset for 315 administrative districts between 1962 and 2000. This comprises data on Hindu-Muslim riots, state legislative assembly (Vidhan Sabha) election results, and various district demographics. We take our measures of Hindu-Muslim riots from

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15We collapse our data back to the 1961 administrative district boundaries to maintain stable geographic units over time. A description of how our different data were re-aggregated to these boundaries, along with a list of included states, is provided in Appendix B. The analysis begins in 1962 because prior to this, approximately one fifth of state assembly constituencies—that is, all constituencies reserved for scheduled castes and tribes—elected multiple MLAs. Our estimation and identification strategies cannot accommodate these cases.
the Varshney-Wilkinson dataset.\textsuperscript{16} Election results are drawn from the complete statistical reports published by the Election Commission of India, and cleaned and compiled by Francesca Jensenius. Summary statistics for all variables are displayed in Appendix Table D1. Detailed descriptions of data sources and dataset construction are provided in Appendix B.

Generating a consistent estimate of the effect of Congress incumbency on Hindu-Muslim violence is challenging. Naive estimates of this relationship are likely to be biased for two reasons. First, riots may themselves affect voting behavior and hence the party that wins office, implying reverse causality (Dhattiwala and Biggs, 2012). Second, it is easy to imagine numerous factors that jointly affect both the incidence of rioting and the electorate’s propensity to vote for one party or another, such as the number of minority voters or the prevailing economic climate. Common strategies to deal with endogeneity—principally the inclusion of fixed effects, lagged dependent variables, and/or a vector of controls—rely on strong assumptions about conditional independence that are impossible to validate empirically.

Our solution to these problems is to leverage a natural experiment that produces random variation in the extent of Congress party incumbency at the administrative district level. By itself, a traditional close-elections regression discontinuity set-up will not work in our application: data on riots are only collected at the district level, yet each district contains multiple state assembly constituencies. We therefore employ a strategy that integrates the close-election RD design with an instrumental variables (IV) model, drawing on the method pursued in Clots-Figueras (2012). Based on the assumption that the outcomes of very close elections are decided as-if randomly, our approach works as follows. First, we identify close elections by calculating the margin of victory or defeat for the Congress candidate ($MOV_{Cong}$) in each state legislative assembly election:

$$MOV_{Cong} = \begin{cases} V_{Cong} - V_{RunnerUp} & \text{if Congress candidate wins election} \\ V_{Cong} - V_{Winner} & \text{if Congress candidate loses election} \end{cases}$$

\textsuperscript{16}We extend their dataset through 2000 using data collected by Mitra and Ray (2014)
where $V_{\text{Cong}}$ is the vote percentage received by the Congress candidate, $V_{\text{RunnerUp}}$ is the vote percentage received by the runner-up, and $V_{\text{Winner}}$ is the vote percentage received by the winning candidate. Next, we rely on the fact that MLA constituencies form perfect subsets of administrative districts, allowing us to construct district-level variables from constituency-level data. Calculated at each state assembly election, our main independent variable, $\text{CongSeatShare}$, is the fraction of MLA seats in the district won by Congress candidates. The instrument, $\text{CongCloseWin}$, is the fraction of MLA seats in the district won by a Congress candidate in close elections. In our main analyses we define close elections as those in which the Congress candidate defeated the runner-up by less than 1 percentage point, i.e. $|\text{MOV}_{\text{Cong}}| < 1$.\footnote{We opt for 1 percent because we believe that this very narrow bandwidth mitigates the chances of bias. Fortunately, our close-elections database contains 1099 elections won by this margin, suggesting that our statistical tests are sufficiently powered.}

Importantly, our instrument, $\text{CongCloseWin}$, comprises a random component—victory by Congress candidates in very close elections—and a non-random component—the number of close elections that take place in the district. To isolate the random variation, we control for the proportion of elections in the district involving a close race between a Congress and a non-Congress candidate ($\text{CongCloseProp}$), thereby satisfying the exclusion restriction. Appendix Figure A1 provides a visual representation of how these three district-level variables are constructed from the constituency-level electoral data.

To summarize, our identifying assumption is that, conditional on the proportion of elections that are closely fought by Congress, the proportion of seats won by Congress in close elections is exogenous to potential confounders. This leads us to estimate the following model:

$$ Y_{it} = \alpha + \beta \text{CongSeatShare}_{it} + \gamma \text{CongCloseProp}_{it} + \varepsilon_{it} \quad (2) $$

$$ \text{CongSeatShare}_{it} = \mu + \lambda \text{CongCloseWin}_{it} + \kappa \text{CongCloseProp}_{it} + \nu_{it} \quad (3) $$

where Equation 2 is the second stage and Equation 3 is the first stage from IVLS estimation.
Because districts are assigned to treatment at the time elections take place and the treatment remains constant in the years between elections, we organize our data so that \( i \) indexes districts and \( t \) indexes election cycles (where \( t \) refers to the term of the state assembly elected in the most recent elections). \( Y_{it} \) stands in for one of our dependent variables: a binary indicator for whether any riots occurred, or the logged count of riots occurring in district \( i \) during election cycle \( t \).\(^{18}\) \( \nu_{it} \) and \( \varepsilon_{it} \) are the error terms, while \( \alpha \) and \( \mu \) are constants. \( CongSeatshare \) and \( CongCloseWin \) are as defined in the preceding paragraphs. We specify \( CongCloseProp \) using both linear and— following the recommendation of Angrist and Pischke (2008)—saturated parameterizations.\(^{19}\)

Our empirical approach turns on the assumption that the outcomes of very close elections are as-if random. Some scholars have raised concerns about whether this is true for elections to the U.S. House of Representatives, finding evidence of systematic differences between bare winners and losers (Caughey and Sekhon, 2011). However, recent studies have carefully validated this assumption in a range of different electoral contexts, including India (Uppal, 2009), and an analysis of close elections across numerous countries, time periods, and levels of government concludes that post-war U.S. House elections are an anomaly (Eggers et al., 2014). Our own tests indicate that the probability of Congress winning a close election is equivalent to a coin flip. Appendix Table A1 displays a chi-square test showing that the observed proportion of Congress wins in close elections (0.512) does not differ significantly from 0.5. We also conduct a series of balance tests, which show that various attributes of close elections which Congress won do not differ systematically from those which it lost (Appendix Figures A2 and A3). This makes sense. Compared to the U.S., it is harder for Indian politicians and parties to systematically win close elections. For one, there are usually several viable candidates competing, making it very difficult to know the threshold for winning ex ante. Unlike the

\(^{18}\)Following conventional practice, we take the log of our outcome variables, adding 0.01 to avoid dropping observations that are zero.

\(^{19}\)That is, we include dummy variables for each unique numerator-denominator combination.
U.S. case, Indian elections are characterized by a near-total lack of constituency-level polling, particularly in the period we investigate. On top of that, we find that the incidence of very close elections is uncorrelated across election cycles (Appendix Table A2). This implies that predicting and manipulating close-election outcomes is near-impossible. There is thus strong support for the idea that the outcomes of close MLA elections are essentially random.

Falsification tests further support this claim. If our instrument is exogenous, we should observe no statistical relationship between the instrument and past violence outcomes. When we regress the instrument (*CongCloseWin*) on riot outcomes in the previous election cycle, controlling for *CongCloseProp*, we find that prior violence in a district cannot predict the instrument (Appendix Figure A4). Second, in a placebo test, we use our instrumental variables model to predict violence in the previous election cycle. Again, there is no statistically significant association (Appendix Figure A5). Given the strong evidence that our instrument is exogenous conditional on a single control, we do not include additional covariates in our main analysis as they are not necessary for—and may interfere with—unbiased estimation.

## Results

To preserve space and facilitate comparison, we report most results graphically. For each regression model, the dot and whiskers plot visualizes a coefficient point estimate and its 95 percent confidence interval. The parameter estimate in question is $\hat{\beta}$ from Equation 2: the marginal effect on the dependent variable of moving from Congress winning *none* to winning *all* MLA seats in an administrative district, identified for close elections. Confidence intervals are calculated using standard errors clustered at the district level, accounting for the potential correlation of errors within districts over time.

In Figure 2 we implement the IVLS strategy to evaluate whether the election of Congress MLAs decreases Hindu-Muslim riots on average.\textsuperscript{20} Stipulating close elections to be those in

\textsuperscript{20}The F-statistic for the first-stage IVLS regression easily exceeds 10 (Appendix Table D2); hence, we do not worry about asymptotic bias caused by weak instruments.
which a Congress candidate won or lost by less than 1 percentage point against a non-Congress candidate, we show that a full increase in Congress seat share in a district (from zero to 100 percent) produces an 87 percent reduction in the number of riots occurring in that election cycle\(^{21}\) and a 40 percentage point decrease in the probability of that district experiencing any riot at all. These effects are highly significant \((p = 0.01 \text{ and } 0.01, \text{ respectively})\) and are robust to using either a linear or a saturated specification of the control variable. They are also robust to the use of multiple bandwidths (Appendix Figure D3) and alternative estimators and specifications (Appendix Figures D4 – D7).\(^{22}\) As for external validity, a full 275 districts out of the 315 districts we analyze experienced close elections at least once in the period we study, while 29 percent of district-election cycles between 1962 and 2000 involved at least one close election between a Congress and a non-Congress candidate. Additionally, Appendix Figures D8 and D9 show that elections closely contested by Congress are consistently distributed across election years (between 1 and 6 percent of all elections during each election year) and across states (between 2 and 8 percent of elections in each state). Thus, the local average treatment effect we report was estimated using a substantial proportion of cases in the dataset and the vast majority of Indian districts.\(^{23}\) Furthermore, since our identification strategy analyzes the causal effect of victory in the closest elections, the effect we identify is estimated for precisely those places where Wilkinson (2004) and others have argued that Hindu-Muslim riots are most likely to occur.

\(^{21}\)When only the dependent variable is logged, Wooldridge (2012) gives the equation for calculating the percentage change in \(Y\) for a change in \(X\) as follows: \(\%\Delta Y = 100 \times (exp(\beta \times \Delta X) - 1)\). We calculate a percentage change for a one unit increase in CongSeatShare, or shifting from 0 to 100 percent of seats held by Congress.

\(^{22}\)The effect of Congress incumbency is also stable over time (left panel of Appendix Figure D12).

\(^{23}\)In Appendix Table D3 we show that close elections are no more likely to occur in urban, dense, or religiously heterogeneous areas.
One way to gauge the overall effect of Congress incumbency is to predict the number of riots that would have occurred under two counterfactual scenarios corresponding directly to our research design: (1) Congress won all close elections in the dataset and (2) Congress lost all close elections in the dataset. Using model estimates, we generated 1,000 simulations of the expected number of riots under these counterfactual scenarios. Measured in this way, the impact of Congress incumbency is strikingly large. Between 1962 and 2000, the 315 districts in our panel witnessed a total of 998 riots. Our estimates suggest that had Congress won every close election that occurred in this sample, India would have seen 103 (10 percent) fewer riots (Appendix Figure D10)—estimated with a 95 percent confidence interval of [-184; -37]. If, conversely, Congress had lost all close elections, we predict that India would have seen 117 [36; 243], or 11 percent, more riots (Appendix Figure D10). To be sure, the likelihood that either of these lopsided states of the world would have come about is vanishingly small. Still, this exercise illustrates the substantial role that Congress MLAs have played in stemming local Hindu-Muslim conflict in India.

Some may object that results derived from IVLS estimation hinge on parametric assumptions and/or a complex research design. To assuage these concerns, we implement the simplest, most transparent test the data allow. We first limit our sample to district-election cycles in which a single close election took place between a Congress and a non-Congress candidate. We then simply compare average riot outcomes between the set of district-election cycles in which Congress candidates won these close elections and those in which Congress candidates

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24 The simulation procedure is described in depth in Appendix C.

25 Median differences are reported. Similarly, we estimate that there would have been 260 (12 percent) fewer days of rioting and 8768 (30 percent) fewer riot casualties.

26 Similarly, we estimate that there would have been 287 (14 percent) more days of rioting and 13731 (46 percent) more casualties.

27 Figure D10 shows substantial effects even if we consider scenarios won close elections with probabilities of 0.2, 0.4, 0.6, and 0.8.
lost. The results of two-tailed $t$-tests appear in Figure 3. We find that Congress victory caused a 32 percent decrease in the number of riots in a district, and a 32 percent (7.6 percentage point) decrease in the probability of observing any violence whatsoever.\textsuperscript{28} Both effects are highly significant ($p = 0.02$ and 0.02, respectively).\textsuperscript{29}

**Mechanisms**

We have presented strong evidence that incumbency by Congress MLAs reduced Hindu-Muslim riots in Indian districts. What explains this effect? Prior research has argued that Congress’s reliance on minority votes and a multiethnic support base might have led it to devote special efforts toward controlling ethnic violence so as to maintain the party’s core base of support and prevent polarization that might have splintered its cross-ethnic coalition. We probe these explanations in two ways. First, we analyze whether the effect of Congress incumbency in reducing violence is most pronounced where minority Muslim voters are most numerous. If Congress MLAs combat riots in order to appeal to their minority voting constituency, we would expect the effect of Congress incumbency to be greatest where such voters make up a larger proportion of the local electorate. Second, we investigate the relationship between Hindu-Muslim riots and Congress’ performance in subsequent elections vis-à-vis its ethno-religious competitors. If Congress MLAs act to suppress riots because they polarize the electorate in a way that favors ethnic parties at the expense of the multiethnic Congress, we

\textsuperscript{28}The large size of effect we estimate here and in the main IVLS specification may be due to the fact that the districts we study—those with close elections—have higher overall levels of violence than those without close elections. The dampening effect of Congress incumbency may therefore be particularly large in such districts because where levels of violence are already low (as they may be in districts without close elections), Congress incumbency is likely to make less of a difference.

\textsuperscript{29}Because riot counts are not normally distributed, we also use a Mann-Whitney test to assess whether the distribution of riots differs where Congress won close elections. Again, we find that Congress victories yield fewer riots ($p = 0.01$).
should expect to see riots boost ethno-religious parties’ vote share while reducing it for the Congress. We find evidence consistent with the idea that Congress candidates’ dependence on local Muslim votes, as well as apprehensions about the religious polarization of the electorate in the event of riots breaking out, are what drive the observed effect.

We also test Wilkinson’s argument that party system fractionalization induces all parties to prevent violence to the same degree by analyzing whether the effect of Congress incumbency disappears when the level of fractionalization is high. We find no evidence that the level of fractionalization conditions this effect.

**Minority support base.** If Congress legislators act to suppress violence in order to appeal to their minority Muslim support base, we might expect them to make the greatest effort where Muslims form a larger percentage of the electorate. If so, then we should expect that the effect of Congress incumbency will be greatest where there is a greater concentration of Muslims in a district.

Using census data, we divide the sample into districts with an above- and below-median Muslim population share and replicate the IVLS analysis on these subsamples. As expected, we find the effect of Congress seat share to be concentrated in districts where the Muslim population is above the median (Figure 4, left panel).\(^{30}\) This is consistent with the notion that Congress’s strong links to Muslim voters led the party’s MLAs to expend extra effort in reducing riots when in office.

\(^{30}\)When comparing the Congress effect in high- and low-Muslim districts, however, there is an important potential confounder. With little (if any) opportunity for intergroup contact, districts containing small or no Muslim populations have fewer opportunities to experience Hindu-Muslim riots, so there may simply be no riots for Congress MLAs to prevent. Thus, we also replicate our split-sample analysis, controlling for districts’ susceptibility to riots by generating new dependent variables which are the residuals from a regression of riot outcomes on lagged riot outcomes. The estimates are virtually identical.
Polarization. Congress legislators may also act to reduce ethnic violence because such violence produces ethnic polarization that weakens the electoral performance of multiethnic parties while benefiting their ethnic counterparts. Hindu-Muslim violence in India is widely thought to increase the salience of ethnic identities, strengthening ethno-religious parties at the expense of Congress as majority voters close ranks in opposition to the vilified minority group. Does Congress in fact lose votes when riots occur? Though the results should be interpreted with caution as they are not causally identified, estimates from OLS regressions (Table 1, top panel) suggest that it does: the outbreak of one additional riot in the year preceding a state assembly election is associated with a 1.3 percentage point average decline in Congress’s district vote share \( (p = .008) \). Can this result be attributed to polarization? We test this by examining the relationship between riots and the vote share of Hindu nationalist parties. The lower panel of Table 1 shows that the BJS/BJP saw a 0.8 percentage point average increase in their vote share following a riot in the year prior to an election \( (p = .038) \). This suggests that the electoral costs to Congress may indeed be due to ethnic polarization following violence. The electoral repercussions of violence appear to give rise to a firm incentive for Congress incumbents to forestall Hindu-Muslim riots.

Party system fractionalization. Finally, we examine whether the effects of partisan incumbency vary across levels of party system fractionalization to assess Wilkinson’s claim that incumbent party identity only matters when fractionalization (measured as \( ENP \)—the Effective Number of Parties) is low—specifically, when \( ENP < 3.5 \). To test this, we split our

\[31\] We estimate separate models using district fixed effects and lagged dependent variables, respectively, in order to bound the treatment effect size (Angrist and Pischke, 2008, 243–7). We use riots in the preceding year as accounts of polarization emphasize the use of riots in the immediate lead-up to elections as a technique to influence voting behavior (Wilkinson, 2004; Iyer and Shrivastava, 2015). We replicate this analysis (not shown) using all riots in the preceding election cycle. The estimates are substantively the same, though the magnitudes of the effects are smaller.
sample into districts with ENP above and below the median and replicate the IVLS analysis on these subsamples. Contra Wilkinson, these analyses (Figure 4, right panel) uncover no evidence of heterogeneity in the effect of Congress incumbency by ENP. Rather, the effect of partisan identity is unconditional; that is, independent of the level of party system fractionalization.

**Alternative interpretations**

Three alternative explanations could, in principle, account for the observed aggregate difference in riot outcomes between districts where Congress candidates won and lost close elections. Since Congress controlled the state government for a full 58 percent of the state-years we analyze, one possibility is that the effect of Congress that we identify is simply the result of partisan alignment with the ruling state government. The governing party at the state level controls the state security apparatus and is formally responsible for maintaining law and order, so we might expect that legislators belonging to the ruling party are better able to stop ethnic violence should they so desire. To evaluate this alternative explanation, we split the sample into districts in which Congress did and did not control the state government in a given district-election cycle. Figure D12 (right panel) reveals this not to be the case. We observe no heterogeneity in the effect by Congress’s state-level governing status: Congress MLAs exerted the same downward effect on riots whether or not the state Chief Minister was a Congressman.

A second possibility is that losing close races causes Congress politicians, or their confederates, to deliberately stoke riots. This would increase the riot count in the “control group,” producing the treatment effect we identify. Our tests of the mechanisms render this interpre-

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32We measure ENP at the district level as the average ENP for all elections held in that district in a given election year. We compare districts where the average ENP is greater and less than the median district (2.73). Wilkinson develops his argument at the state level where ENP takes on a much wider range of values than at the district level.
tation implausible, however. The polarization of the electorate induced by riots disadvantages Congress in subsequent elections, making it counterproductive for the party’s affiliates to instigate riots following an electoral loss. In addition, local Muslim voters—on whom the Congress depended for votes—would presumably have looked extremely unfavorably on Congress orchestrating riots in which Muslims were the principal victims. This would make instigating riots a high-risk strategy where there are large Muslim populations, yet this is precisely where we find the effect of Congress to be strongest.

The third possibility is that non-Congress parties systematically cause Hindu-Muslim violence upon winning office, again explaining the higher riot count in the control group. Since there is no reason to believe that incumbents from non-Congress secular parties would have sought to provoke riots, however, the fact that the effect of Congress incumbency holds against these parties—rather than just ethno-religious ones—undermines this interpretation (Appendix Figure D11). This leaves only the possibility that Congress politicians reduce violence when they win elections.

In Appendix Figure D11, we construct two new versions of our instrument and control: one in which we examine only those close elections in which Congress won or lost closely against an avowedly ethno-religious party, and another in which Congress won or lost closely against any non-ethno-religious party. The BJP/BJS and Shiv Sena are coded as ethno-religious since they mobilize along the Hindu/Muslim cleavage; all other non-Congress parties are coded as non-ethno-religious. We then repeat the analyses from Figure 2. The standard errors are larger due to the fact that partitioning the sample in this manner reduces the number of observations employed in each model. It is clear, though, that the substantive impact of electing Congress MLAs is virtually identical regardless of their opponent’s party type.
Qualitative evidence

Our findings on the importance of Congress MLA incumbency, and the electoral mechanisms that underpin it, resonate with existing ethnographic research. In Theft of an Idol, Brass (1997) narrates a sequence of events in a small town in Meerut district, Uttar Pradesh, in 1983 that seemed poised to escalate into communal violence. A crowd of almost 10,000 people, convened by the Arya Samaj, had gathered outside the local police station to protest the alleged kidnapping and rape of a Hindu girl by two Muslim men. Tensions were running high; the town population was half-Hindu and half-Muslim, and all the conditions were ripe for a major ethnic riot. However, the timely intervention of the local Congress MLA, another prominent municipal Congressman (the MLA’s father-in-law), and the District Magistrate soon defused the situation. The Congressmen coordinated with and directed the police, who, because the Congress party was the “dominant political force” in the area, were “subject to the authority of the Congress” (126). The Congress politicians also put pressure on the DM. According to an opposition party witness, “The DM ... [could not] tolerate a communal riot. Therefore, he became agitated, the burden was placed on him, [by] these Congress leaders and the police officials ... all these officials tried to convince him [of the danger]” (106). The MLA and his father-in-law also did what they could to subdue the crowds: “We advised people. Why are you so interested? Go back, go to your houses, don’t participate” (119).

What drove the Congress response in this case? Electoral considerations hold the key. Brass notes that the Congress politicians “had nothing at all to gain and everything to lose from a public demonstration, especially one that might turn into a communal confrontation” (127). In part, as incumbents, their reputation for upholding basic law and order was at stake. More fundamentally, however, they were catering to their core Muslim supporters—a strategy of “maintaining and strengthening the Congress links with the Muslim community and winning their votes” (116). Last, the Congressmen feared that a riot would cause Hindu-Muslim polarization that might benefit the BJP; they “acted as practical politicians seeking mainly to prevent the non-Congress politicians from gaining any political advantage from the
situation” (128). Concluding, Brass writes that “it is evident that the issue of the preservation or mobilization of a communal political base among Hindus and Muslims underlay the concerns and attitudes of the BJP/Arya Samaj people, on the one side, and the [Congress] Muslim politicians of the town, on the other side” (127). In short, this episode provides a stark example of a Congress MLA wielding his influence to successfully stop a riot.

Contrast the Congress MLA’s efforts to cauterize violence in Meerut with the behavior of BJP MLAs in November 1989 in Jaipur, Rajasthan—a city that had remained virtually riot-free since 1969 (Verghese, 2016, ch. 2). “The specific issue for the conflagration became the BJP’s [election] victory procession”, led by the “victors of Jaipur and Dausa”—that is, the newly elected BJP MLAs. “The election campaign itself had considerably polarised Jaipur residents with the BJP seeking the Hindu vote ... and the Congress candidate getting the backing of Muslims” (Mayaram, 1993, 2529). Part of the MLA-led procession entered the Muslim quarter of Ramganj where participants chanted inflammatory slogans like Musalman ke do sthan, Pakistan ya kabristan (“Muslims have only two places, Pakistan or the grave”). Violence erupted, and spread throughout Jaipur’s walled city. By the time police imposed a curfew that evening, five were dead and 200 seriously wounded, mostly Muslims.

Of course, these anecdotes do not assist with causal identification. Still, as illustrations they underscore the plausibility of the paper’s central hypothesis that the partisanship of sitting legislators impacts the strength of their efforts to control communal violence.

**Conclusion**

In this article, we show that incumbent partisanship matters for ethnic violence. Focusing on India between 1962 and 2000, we show that incumbency by Congress party state legislators caused a significant reduction in local Hindu-Muslim rioting. According to our most conservative estimates, the election of a single Congress MLA in a district brought about a 32 percent reduction in the probability of a riot breaking out prior to the next election. Simulations reveal that had Congress candidates lost all close elections in our dataset, India would
have witnessed 11 percent more riots and thousands more riot casualties. The pacifying effect of Congress incumbency appears to be driven by local electoral considerations, in particular the party’s exceptionally strong linkages to Muslim voters during the period we investigate and the negative effects of riot-induced ethnic polarization on the party’s vote share. Taken together, our findings point to a more important role for parties in developing democracies than existing scholarship tends to assume.

Our study focuses on the Congress Party in India, but there are good reasons to believe that our findings apply to parties in other countries wrought by ethnic divisions. While the Congress is unusual for its longevity, and (until recently) the consistency with which it has garnered the lion’s share of minority votes, secularist parties with multiethnic support bases are a common feature of developing democracies worldwide (Reilly, 2006). Elucidating the relationship between incumbent partisanship and ethnic violence is therefore a crucial task for comparative politics. Future research should begin by assessing whether other noteworthy examples of multietnic parties—for example the ANC in South Africa, or the National Front coalition in Malaysia mentioned in the introduction—also affect local ethnic violence in a similar manner to the Indian National Congress. A second important avenue is to better pin down the precise mechanisms behind these effects. Leveraging natural experiments in riot outbreaks, perhaps produced by weather or the timing of religious festivals, might be a fruitful way to rigorously investigate claims about riot-induced polarization. It would also be valuable to explore how the role of partisanship in shaping violence varies across countries that employ different electoral rules. For individual voters—many of whom place their faith in election outcomes as a means of safeguarding their security and livelihoods—knowing whether the partisan identity of the sitting politician can, in fact, make a tangible difference to their wellbeing is of fundamental importance.

We conclude by recapitulating a theme introduced at the outset—namely, the relationship between ethnic violence and democratic consolidation. Research has demonstrated that, under certain conditions, even minor ethnic disturbances carry the potential to escalate into
large-scale collective action capable of bringing down entire regimes (Beissinger, 2002). India itself underwent traumatizing paroxysms of Hindu-Muslim violence during the partition of the subcontinent in 1947; there were fears following independence that enmity stemming from this cleavage would again tear the country apart. Our paper establishes a major reason why this did not come to pass. The paramount importance of Congress’s role is underscored by the fact that our estimates likely place a lower bound on its true impact. Taken in conjunction with the main result, our secondary finding that riots reduce subsequent Congress vote shares raises the possibility of a feedback loop or multiplier effect, whereby the outbreak of Hindu-Muslim violence causes Congress to lose votes and seats, which in turns leads to more riots, and so on in a vicious cycle. This suggests that our predictions in Appendix Figure D10 understate, perhaps quite dramatically, how much more rioting would have occurred had Congress lost more close elections.34 Hence, this paper sheds new light on the puzzle of how democratic institutions have endured in India—the world’s largest democracy—against challenging odds. Democratic stability in divided societies depends not just on institutions or the nature of social cleavages, but on which parties citizens choose to vote into power.

34In technical terms, the general equilibrium effects of Congress losing close elections may have been far more severe than the partial equilibrium effects we estimate in this paper.
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Rosenzweig, Steven C. 2016. “Dangerous Disconnect: Elite Misperception and the Outbreak of Violence in Electoral Competition.”.


Table 1: Effect of riots on party district vote share

<table>
<thead>
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<th>Fixed Effects</th>
<th>Lagged DV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>District INC Vote Share</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riot Count$_{t-1}$</td>
<td>-0.013</td>
<td>-0.010</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>$N$</td>
<td>2555</td>
<td>2555</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.616</td>
<td>0.656</td>
</tr>
<tr>
<td>District BJS/BJP Vote Share</td>
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<td></td>
</tr>
<tr>
<td>Riot Count$_{t-1}$</td>
<td>0.008</td>
<td>0.009</td>
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<td></td>
<td>(0.004)</td>
<td>(0.003)</td>
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<tr>
<td>$N$</td>
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<td>2555</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.738</td>
<td>0.793</td>
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</table>

Model Specifications

- District fixed effects: Yes, Yes, No, No
- Dependent Variable$_{t-1}$: No, No, Yes, Yes
- Year fixed effects: Yes, Yes, Yes, Yes
- State time trends: No, Yes, No, Yes

Standard errors clustered at the district level reported in parentheses. $N$ is across 307 districts.
Figure 1: Percentage of Muslim votes going to INC and BJS/BJP in Lok Sabha elections, 1957–2009

Notes: Data in green and yellow based on self-reports of Muslim voting found in various surveys conducted by the Centre for the Study of Developing Societies and newly compiled by the authors. The data are noisy due to the relatively small number of Muslim respondents in each survey. Data in gray shows the actual vote share received by the Congress in each election, according to the Election Commission of India. Lines represent Lowess smoothing curves. In the post-Emergency election of 1977, the Bharatiya Jana Sangh (BJS) merged into the Janata Party, which accounts for the jump in Muslim support in that year. The BJS was reconstituted as the BJP in 1980.
Figure 2: Instrumental variables estimates of the effect of $CongSeatShare$ on riot outcomes

Notes: This presents coefficient estimates from IVLS regressions of logged or binary riot outcomes on $CongSeatShare$, using the approach described in the Data and identification section. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. Saturated or Linear indicates how the control, $CongCloseProp$, is specified in the model. $N$ for all regressions is 2871, across 315 districts.
Figure 3: Difference in means estimates of the effect of CongSeatShare on riot outcomes

<table>
<thead>
<tr>
<th>Group</th>
<th>Riot Count</th>
<th>Riot Casualties</th>
<th>Days of Rioting</th>
<th>Pr(Any Riot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: This presents the effects of Congress victory for a restricted sample of district-election cycle observations in which a single close election took place between a Congress and a non-Congress candidate. “Control” indicates Congress loss, and “Treated” indicates Congress victory. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. For riot count variables, we estimate differences of log-transformed counts. For ease of interpreting these differences, the means and their difference were transformed back to their original (un-logged) scale by taking the exponent. This re-scaling explains why confidence intervals are asymmetric around the point estimates. N is 644 across 263 districts.
Figure 4: Heterogeneous effects of CongSeatShare

Notes: This figure presents coefficient estimates from IVLS regressions of logged and binary riot outcomes on CongSeatShare, using the approach described in the Data and identification section. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. N for high and low Muslim population are 1427 and 1372, respectively. N for high and low party fractionalization are both 1397.
Online supplementary appendix

A Identification

Table A1: $\chi^2$ Test of Outcomes in Close Elections

<table>
<thead>
<tr>
<th></th>
<th>Losses</th>
<th>Wins</th>
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</thead>
<tbody>
<tr>
<td>Percent</td>
<td>48.8</td>
<td>51.2</td>
</tr>
<tr>
<td>Number</td>
<td>(536)</td>
<td>(563)</td>
</tr>
</tbody>
</table>

$\chi^2_1 = 0.66, \ P = 0.42$

Table A2: Correlation of Close Elections over Time

<table>
<thead>
<tr>
<th></th>
<th>(T)</th>
<th>(T - 1)</th>
<th>(T - 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(T)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(T - 1)</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(T - 2)</td>
<td>0.02</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>(T - 3)</td>
<td>0.00</td>
<td>0.01</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Pearson correlation coefficients. N is 2556 for (T - 1), 2246 for (T - 2), and 1939 for (T - 3).
Figure A1: Maps illustrating construction of right-hand-side electoral variables

Independent variable = 6/11

Control variable = 3/11

Instrumental variable = 1/11

Notes: Map displays state assembly elections in Agra District, Uttar Pradesh, in 1985. Numbers represent the Congress candidate’s margin of victory or loss in each MLA constituency. The number of dark shaded areas represents the numerator of the variable, while the denominator is the total number of MLA constituencies in the district. This shows a bandwidth of 1%.
Figure A2: Balance Test: T-Test for difference in means between Congress wins and losses by less than 1 percent

Notes: Results from a two-sided t-test of the difference in means between close elections won and lost by Congress candidates across several election characteristics. Confidence intervals are based on robust standard errors clustered at the district level. $N$ for each test is in parentheses next to the variable being tested.
Figure A3: Balance Test: Local Linear Regression Discontinuity

Notes: Results from a local linear regression to estimate differences at the discontinuity between Congress candidates winning and losing election across several election characteristics. Bandwidths are estimated using optimal bandwidth selection suggested by Imbens and Kalyanaraman. While bandwidths differ for each outcome, they are all between two and three percent. Confidence intervals are based on robust standard errors. $N$ for each test is in parentheses next to the variable being tested.
Figure A4: Randomization test—estimates showing that violence at time $t - 1$ does not predict our instrument at time $t$

Notes: OLS regressions of the instrument ($CongCloseWin$) in election years $t$ on violence measures in the election cycle preceding the election ($t - 1$). Regressions include $CongCloseProp$ as a saturated control. Bars represent 95% confidence intervals based on robust standard errors clustered at the district level.
Figure A5: Placebo test—estimates showing that the instrument cannot predict “pre-treatment” violence outcomes

Notes: Results from IVLS regressions of logged and binary riot outcomes at $t - 1$ (previous election cycle) on $CongSeatShare$ at time $t$. Bars represent 95% confidence intervals using robust standard errors clustered at the district level.
Figure A6: Placebo test—estimates from the reduced-form maximum likelihood models showing that the instrument cannot predict “pre-treatment” violence outcomes.

Notes: This figure reproduces the previous figure using reduced-form negative binomial and probit regressions of riot outcomes at $t - 1$ (previous election cycle) on $CongSeatShare$ at time $t$. Bars represent 95% confidence intervals based on robust standard errors clustered at the district level.
Figure A7: Randomization test—estimates showing that violence and INC performance at time $t-1$ does not predict our instrument at time $t$

<table>
<thead>
<tr>
<th>Pre-treatment Variables</th>
<th>$\hat{\beta}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lagged Riot Count</td>
<td>-0.001</td>
</tr>
<tr>
<td>Lagged Any Riot</td>
<td>0.000</td>
</tr>
<tr>
<td>Lagged INC Seat %</td>
<td>0.001</td>
</tr>
<tr>
<td>Lagged INC District Voteshare</td>
<td>-0.001</td>
</tr>
</tbody>
</table>

Notes: OLS regressions of the instrument ($CongCloseWin$) in election years $t$ on normalized violence and INC performance measures in the election cycle preceding the election ($t-1$). Regressions include $CongCloseProp$ as a saturated control. Bars represent 95% confidence intervals based on robust standard errors clustered the district level. $N$ is 2556 for all regressions.
B Data

Included states. The states included in the analysis are: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal. Other states—all of which, with the exception of Jammu and Kashmir, are extremely small—were omitted because data were unavailable.

Creating the district panel. Our analyses required compiling a variety of data and aggregating them to create a panel dataset for constant geographic units across time. This is necessary as Indian administrative district boundaries have changed periodically. In 1961, for example, there were 331 districts; by 2011 there were 640.

Changes to administrative district boundaries took two forms. The vast majority were “simple” splits in which one district was cleanly divided into two or more districts. In other cases, new districts were the result of “complex” splits: the new district’s territory was formed out of multiple existing districts. Our raw annual data on riots are recorded using the district boundaries as they existed at the time the riots took place. Our goal was to aggregate these data back to 1961 districts.

We define the original unsplit districts as “parents” and the new districts as “children.” To match parents to children, we used Appendix 1 to Table A-1 from the General Population Tables (Part II-A) of the 2001, 1991, 1981, and 1971 Indian censuses. These tables record all districts extant in the year of the census. When a new district has been created, the table indicates the parent district or districts out of which it was carved. For each census round, we identify the changes that took place.

Our dependent variables are count data. In the simplest case, district boundaries are unchanged across census years. When the children districts are the result of a simple split, aggregating backwards is straightforward: since there is only one parent district, we simply sum up the counts of all its children. For complex splits, the procedure is more involved.
In such cases, we take a weighted sum of the counts from the children districts. Using the Census tables, we calculate what proportion of the territory in a child district \( j \) came from each parent district \( i \) and define this as the weight \( W_{ij} \). We compute some count variable \( X \) for parent district \( i \) by taking the weighted portion of \( X \) from each child district \( j \). That is, we sum over the product of each \( X_j \) and \( W_{ij} \) as follows:

\[
X_i = \sum_j X_j W_{ij}
\]  

(A)

More precisely, we use weights calculated from each census to bring districts back first from 2001 to 1991, then from 1991 to 1981, from 1981 to 1971, and finally from 1971 to 1961.\(^{35}\)

We further had to map state legislative (MLA) constituencies onto the 1961 administrative districts in order to create our right-hand-side electoral variables: CongSeatShare, CongCloseWin, and CongCloseProp. Like administrative districts, the boundaries of state legislative constituencies changed over time. Throughout, however, these constituencies remained perfect subsets of administrative districts.

We used the reports of the Delimitation Commission of India from 1961, 1971, and 1976 to assign each legislative constituency at election time \( t \) to the administrative district to which it belonged, also at time \( t \). (After 1976, legislative districts were not redrawn until 2008, easing the process for this period.) If these administrative districts had gone unchanged since 1961, then no further work was needed—the MLA constituency was already matched to the correct 1961 district. If the constituency had ended up in child district produced by a simple split, then we simply reallocated this seat to the original parent district. In cases where an MLA constituency belonged to a child district produced via a complex split, we used tehsil and village information contained within the Delimitation Reports, as well as district maps, to manually assign the constituency to the correct 1961 district. In this manner, we were able to accurately assign all MLA constituencies between 1962 and 2008 to 1961 administrative

\(^{35}\)Equation A is easily generalized for simple changes. When the district remains unchanged, \( i = j \). When there is a simple split, each \( W_{ij} = 1 \).
districts.

**District Muslim population.** To measure the proportion of the population in a district that was Muslim, we used reports from the 1961, 1971, and 1981 censuses. These data included the total population for a district and the total number of Muslims in a district. Applying the same procedure for reconstructing 1961 district boundaries, we added up total population and total Muslim population for 1961 districts. We thereby calculate the proportion of the district that was the Muslim.

**Congress state governments.** We used secondary historical sources to compile a list of all parties that formed state governments in India between 1961 and 2008. This list included the party of the Chief Minister as well as any other parties in coalition governments. In our analyses, we used this data to create a dummy variable indicating whether the Chief Minister was from the Congress Party in a given state-year.

**Riots.** As mentioned in the paper, we use the Wilkinson-Varshney database of Hindu-Muslim riots from 1950 to 1995. We append these with data collected by Mitra and Ray (2014), bringing the panel to 2000. In cases where these data did not report the district in which the riots occurred, we used the state and locality of the riot to find the district.
C Explanation of simulations

To simulate the expected count of riots for our entire sample (Figure D10), we estimate the reduced-form equation of our instrumental variables design using negative binomial regression and a 1% bandwidth. We then generate new copies of the data for several counter-factual scenarios in which Congress won close elections with different probabilities: 0, 0.2, 0.4, 0.6, 0.8, and 1. Next, we generate 1,000 clustered bootstrap simulations. For each bootstrap simulation, we estimate the vectors of coefficients, $\tilde{\beta}$, then calculate predicted values, $\tilde{y}$ for the actual data and for 250 counterfactual datasets for each victory probability,$^{36}$ and transform these into the expected counts by taking $e^{\tilde{y}}$. Finally, for each scenario, we take the sum over all observations in the data, giving us the expected number of riots. By using bootstrap simulation, we are able to estimate the uncertainty of predictions from our model.

---

$^{36}$This is necessary, since we have to randomly sample which close elections are won and lost, given a probability of victory.
D Supplements to the main analysis

Table D1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of riots</td>
<td>0.348</td>
<td>1.509</td>
<td>2871</td>
<td>0</td>
<td>47.351</td>
</tr>
<tr>
<td>Number of riot casualties</td>
<td>9.170</td>
<td>73.535</td>
<td>2871</td>
<td>0</td>
<td>2386.000</td>
</tr>
<tr>
<td>Number of riot days</td>
<td>0.704</td>
<td>3.806</td>
<td>2871</td>
<td>0</td>
<td>88.351</td>
</tr>
<tr>
<td>Any Riot</td>
<td>0.160</td>
<td>0.367</td>
<td>2871</td>
<td>0</td>
<td>1.000</td>
</tr>
<tr>
<td>% Congress seats</td>
<td>0.436</td>
<td>0.319</td>
<td>2871</td>
<td>0</td>
<td>1.000</td>
</tr>
<tr>
<td>% Congress close wins</td>
<td>0.018</td>
<td>0.052</td>
<td>2871</td>
<td>0</td>
<td>1.000</td>
</tr>
<tr>
<td>% Congress close elections</td>
<td>0.036</td>
<td>0.072</td>
<td>2871</td>
<td>0</td>
<td>1.000</td>
</tr>
<tr>
<td>Number of Seats</td>
<td>11.044</td>
<td>6.529</td>
<td>2871</td>
<td>1</td>
<td>55.000</td>
</tr>
<tr>
<td>% Muslim</td>
<td>0.100</td>
<td>0.091</td>
<td>2799</td>
<td>0</td>
<td>0.614</td>
</tr>
<tr>
<td>Congress chief minister</td>
<td>0.556</td>
<td>0.497</td>
<td>2863</td>
<td>0</td>
<td>1.000</td>
</tr>
<tr>
<td>% Congress vote</td>
<td>0.362</td>
<td>0.133</td>
<td>2870</td>
<td>0</td>
<td>0.963</td>
</tr>
<tr>
<td>% Turnout</td>
<td>0.572</td>
<td>0.119</td>
<td>2871</td>
<td>0</td>
<td>0.890</td>
</tr>
</tbody>
</table>

Table D2: First Stage F-Test

<table>
<thead>
<tr>
<th>Bandwidth</th>
<th>F-Statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%</td>
<td>55.50</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Table D3: Correlates of Close Elections

<table>
<thead>
<tr>
<th></th>
<th>Prop. Close Elections</th>
<th>Any Close Election</th>
<th>% Muslim</th>
<th>% Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Close Election</td>
<td>0.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Muslim</td>
<td>0.05</td>
<td>0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Urban</td>
<td>0.04</td>
<td>0.05</td>
<td>0.18</td>
<td></td>
</tr>
<tr>
<td>Population Density</td>
<td>0.12</td>
<td>0.15</td>
<td>0.41</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Spearman rank correlation coefficients. N is 2787 for % Muslim and Urban and 2436 for Population Density.
Figure D1: Hindu-Muslim riots in India by year, 1950–2000

Notes: Data come from the Varshney-Wilkinson Dataset on Hindu-Muslim Violence in India and an extension of it to 2000 by Mitra and Ray (2014).
Figure D2: Percentage of Muslim votes going to various parties in Indian elections, 1957–2004

Notes: Data based on self-reports of Muslim voting found in various surveys conducted by the Centre for the Study of Developing Societies and newly compiled by the authors. Surveys sometimes report Muslim vote shares for formal (i.e. pre-election) coalitions of parties; this explains why some parties in the legend are grouped together. For election years when we have two surveys, we provide separate plots for each survey.
Figure D3: Instrumental variables estimates of the effect of CongSeatShare on riot outcomes, multiple bandwidths

<table>
<thead>
<tr>
<th>Bandwidth</th>
<th>Log Riot Count</th>
<th>Log Riot Casualties</th>
<th>Log Days of Rioting</th>
<th>Pr(Any Riot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3%</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>2%</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>1%</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
</tr>
</tbody>
</table>

Notes: This figure presents coefficient estimates from IVLS regressions of logged or binary riot outcomes on CongSeatShare, using the approach described in the Data and Identification section, across multiple bandwidths. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. Bandwidth refers to the margin of victory used to define a close election. N for all regressions is 2871, across 315 districts. The number of close elections for each bandwidth is 1099, 2212, and 3331 for 1%, 2%, and 3%, respectively.
Figure D4: Instrumental variables estimates of the effect of *CongSeatShare* on riot outcomes, with district and year fixed effects

This figure presents coefficient estimates from IVLS regressions of logged or binary riot outcomes on *CongSeatShare*, using the approach described in the Data and Identification section, with district or year fixed effects. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. *N* for all regressions is 2871, across 315 districts.
This figure presents estimates from negative binomial (top three panels) and probit (bottom panel) regressions of the reduced-form equation. That is, unlogged riot outcomes regressed on CongCloseWin and CongCloseProp. Bars represent 95% confidence intervals derived from robust standard errors clustered at the district level. The results are in line with those shown in Figure 2, although specifications using a linear control are weaker and sometimes drop out of conventional significance. N for all regressions is 2871, across 315 districts.
Figure D6: Instrumental variables estimates of the effect of CongSeatShare on riot outcomes, with standard errors clustered by state

This figure presents coefficient estimates from IVLS regressions of logged or binary riot outcomes on CongSeatShare, using the approach described in the Data and Identification section. Bars represent 95% confidence intervals using robust standard errors clustered at the state level using cluster bootstrapping and percentile confidence intervals. Because the bootstrapped distribution is asymmetric, the confidence intervals are asymmetric around the point estimates. N for all regressions is 2871, across 315 districts.
Figure D7: Instrumental variables estimates of the effect of *CongSeatShare* on riot outcomes, with standard errors clustered by state-election year.

This figure presents coefficient estimates from IVLS regressions of logged or binary riot outcomes on *CongSeatShare*, using the approach described in the Data and Identification section. Bars represent 95% confidence intervals using robust standard errors clustered at the state-election year level. *N* for all regressions is 2871, across 315 districts.
Figure D8: Proportion of elections contested closely by INC by election years.

Figure D9: Proportion of elections contested closely by INC by states.
Figure D10: Simulated difference in riots when Congress wins all close elections compared to its actual performance

Notes: This figure plots the simulated predictions of how many fewer riots would have occurred if Congress had won close election with probabilities of 0, 0.2, 0.4, 0.6, 0.8, and 1, compared to its actual performance. The predictions are based on 1,000 clustered bootstrapped replications of negative binomial regression estimates of the reduced-form equation from our instrumental variables design, using a 1% bandwidth (2 simulations drop due to failure for the model to converge). The figure reports the median change in riots in the middle of each simulated distribution. See Appendix C for further explanation.
Figure D11: Effects of CongSeatShare, by opposition party type

Notes: This figure presents coefficient estimates from IVLS regressions of logged or binary riot outcomes on CongSeatShare, using the approach described in the Data and Identification section. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. CongCloseProp uses a saturated specification. “Ethnic parties” refers to the BJS/BJP and the Shiv Sena, parties which mobilize along the Hindu-Muslim ethnic divide. “All Other Parties” refers to all parties other than the ethnic parties and the INC. N for all regressions is 2871, across 315 districts.
Figure D12: Effects of CongSeatShare, by time-period and state-government incumbency

<table>
<thead>
<tr>
<th>Condition</th>
<th>Log Riot Count</th>
<th>Log Riot Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After 1989</td>
<td>INC Government</td>
</tr>
<tr>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Condition</th>
<th>Log Riot Count</th>
<th>Log Riot Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After 1989</td>
<td>INC Government</td>
</tr>
<tr>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: This figure presents coefficient estimates from IVLS regressions of logged and binary riot outcomes on CongSeatShare, using the approach described in the Data and identification section. Bars represent 95% confidence intervals using robust standard errors clustered at the district level. N for Pre- and Post-1989 are 1953 and 918, respectively. N for Congress government and opposition are 1593 and 1270, respectively.
Figure D13: Reduced-form negative binomial estimates of heterogeneous effects

This figure presents estimates from negative binomial regressions of the reduced-form equation. That is, unlogged riot outcomes are regressed on $CongCloseWin$ and $CongCloseProp$. Bars represent 95% confidence intervals derived from robust standard errors clustered at the district level. The subgroups used to demonstrate the heterogeneous effects are described in the main paper. $N$ for high and low Muslim population are 1427 and 1372, respectively. $N$ for high and low party fractionalization are both 1397.